

# CAD for Industry

## Course Design

2005-2006

### **Course Information**

<b>Organization</b>	Eastern Arizona College
<b>Division</b>	ITE
<b>Course Number</b>	DRF 263
<b>Title</b>	CAD for Industry
<b>Credits</b>	2
<b>Developed by</b>	Dee Lauritzen
<b>Lecture/Lab Ratio</b>	1 hour Lecture, 2 hours Lab per week
<b>Transfer Status</b>	Non-transferable
<b>Activity Course</b>	No
<b>CIP Code</b>	15.1300
<b>Assessment Mode</b>	Portfolio
<b>Semester Taught</b>	Offered Upon Request
<b>GE Category</b>	None
<b>Separate Lab</b>	No
<b>Awareness Course</b>	No
<b>Intensive Writing Course</b>	No

### **Prerequisites**

None

### **Educational Value**

Students interested in expanding their knowledge of various computer-aided design programs not covered in other classes.

### **Goals**

1. Course is designed to give students hands on experience in the use of Computer Aided Drafting hardware and software. Students will work with various CAD or special application software to allow students time and instruction in systems not normally covered in the curriculum. This course introduces students to additional software and can help prepare them to work with these various software packages in the job market.

## **Description**

Students will explore different Computer Aided Drafting systems or applications. Students will select one software application from among AutoCAD LT, AutoDesk products, architectural or mechanical applications, etc., and produce working drawings, models, or other appropriate output to demonstrate the use of each product.

## **Textbooks**

Various tutorials according to student's needs.

## **Supplies**

As needed for selected software application.

## **Competencies and Performance Standards**

### **1. Operate the specific CAD or application software.**

#### **Learning objectives**

*What you will learn as you master the competency:*

- a. Configure the specific CAD or application software.
- b. Use the application tutorials to learn about specific features.
- c. Use the application 'User Guide' to find answers to questions.

#### **Performance Standards**

*Competence will be demonstrated:*

- o through completion of course assignments
- o using lab computers and other equipment

*Criteria - Performance will be satisfactory when:*

- o learner completes a drawing or other assignment using the selected CAD or application software.

### **2. Explain the features, limitations, and considerations associated with the commands and characteristics of the selected software.**

#### **Learning objectives**

*What you will learn as you master the competency:*

- a. Acquaint self with application capabilities through use of the software 'User Guide'
- b. Explore different commands available through the application software.
- c. Analyze various application commands and use them appropriately

#### **Performance Standards**

*Competence will be demonstrated:*

- o through completion of course assignments

- o using lab computers and other equipment

*Criteria - Performance will be satisfactory when:*

- o learner completes a drawing or other assignment using the selected CAD or application software.

**3. Utilize system settings, drawing aids, shortcuts, and other features.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Use available application settings in the development of a drawing or other assignment.
- b. Use available application drawing aids and shortcuts in the completion of course assignments.

***Performance Standards***

*Competence will be demonstrated:*

- o through completion of course assignments
- o using lab computers and other equipment

*Criteria - Performance will be satisfactory when:*

- o learner completes a drawing or other assignment using the selected CAD or application software.

**4. Operate any specific workstation components including the microcomputer, input/output devices.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Utilize available computer and other resources to complete course assignments.

***Performance Standards***

*Competence will be demonstrated:*

- o using lab computers and other equipment
- o through completion of course assignments

*Criteria - Performance will be satisfactory when:*

- o learner completes a drawing or other assignment using the selected CAD or application software.

**5. Manage data files.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Create subdirectories to manage application information.
- b. Back up various application information files.

***Performance Standards***

*Competence will be demonstrated:*

- o using lab computers and other equipment

*Criteria - Performance will be satisfactory when:*

- o learner creates and uses subdirectories to assist in managing application data files.

**6. Produce scaled drawings using the plotter or printer for final hard copy.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Output a copy of a completed course assignment to the printer or other appropriate device.

***Performance Standards***

*Competence will be demonstrated:*

- o using lab computers and other equipment

*Criteria - Performance will be satisfactory when:*

- o learner successfully generates acceptable printed or otherwise appropriate output from course assignment.

**7. Apply one or more of the advanced application features of the selected application.**

***Learning objectives***

*What you will learn as you master the competency:*

- a. Create a drawing or other course assignment using commands beyond basic element creation or editing commands.

***Performance Standards***

*Competence will be demonstrated:*

- o using lab computers and other equipment

*Criteria - Performance will be satisfactory when:*

- o learner demonstrates an understanding of advanced application features by using them on a course assignment or project.

## ***Types of Instruction***

Classroom Presentation

Lab

Totals

## ***Grading Information***

### ***Grading Scale***

A 90% or Better Average of Course Work

- B 80% to 89% Average of Course Work
- C 70% to 79% Average of Course Work
- D 60% to 69% Average of Course Work
- F 59% or lower Average of Course Work